

1638

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/304,967

DATE: 09/26/2000
 TIME: 16:38:11

Input Set : A:\04646-1.app
 Output Set: N:\CRF3\09262000\I304967.raw

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3 <110> APPLICANT: Lomonosoff, George P.
 4 Johnson, John E.
 5 Bendig, Mary
 6 Jones, Tim
 7 Longstaff, Marian
 9 <120> TITLE OF INVENTION: Modified Plant Viruses as Vectors of Heterologous
 10 Peptides
 12 <130> FILE REFERENCE: DOW-04646
 14 <140> CURRENT APPLICATION NUMBER: 09/304,967
 15 <141> CURRENT FILING DATE: 1999-05-05
 17 <150> PRIOR APPLICATION NUMBER: 08/471,048
 18 <151> PRIOR FILING DATE: 1995-06-06
 20 <150> PRIOR APPLICATION NUMBER: 08/612,858
 21 <151> PRIOR FILING DATE: 1996-03-12
 23 <150> PRIOR APPLICATION NUMBER: 08/137,032
 24 <151> PRIOR FILING DATE: 1993-03-18
 26 <150> PRIOR APPLICATION NUMBER: PCT/GB20/00589
 27 <151> PRIOR FILING DATE: 1992-04-02
 29 <160> NUMBER OF SEQ ID NOS: 123
 31 <170> SOFTWARE: PatentIn Ver. 2.0
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 34 <211> LENGTH: 120
 35 <212> TYPE: DNA
 36 <213> ORGANISM: Cowpea mosaic virus
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 43 <211> LENGTH: 40
 44 <212> TYPE: PRT
 45 <213> ORGANISM: Cowpea mosaic virus
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 51 Ala Ser Thr Pro Pro Ala Pro Phe Ser Asp Val Thr Ala Val Thr Phe
 52 20 25 30
 54 Asp Leu Ile Asn Gly Lys Ile Thr
 55 35 40
 58 <210> SEQ ID NO: 3
 59 <211> LENGTH: 27
 60 <212> TYPE: PRT
 61 <213> ORGANISM: Foot-and-mouth disease virus
 63 <400> SEQUENCE: 3
 64 Ser Thr Tyr Ser Arg Asn Ala Val Pro Asn Leu Arg Gly Asp Leu Gln
 65 1 5 10 15
 67 Val Leu Ala Gln Lys Val Ala Arg Thr Leu Pro
 68 20 25

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78 aaaaggttgc tcggactctt c 81
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81 <211> LENGTH: 81
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83 <213> ORGANISM: Foot-and-mouth disease virus
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87 ccaacgagcc tgagaaggat c 81
89 <210> SEQ ID NO: 6
90 <211> LENGTH: 52
91 <212> TYPE: PRT
92 <213> ORGANISM: Foot-and-mouth disease virus
94 <400> SEQUENCE: 6
95 Gly Pro Val Cys Ala Glu Ala Ser Asp Val Tyr Ser Pro Cys Met Ile
96 1 5 10 15
98 Ala Ser Thr Tyr Ser Arg Asn Ala Val Pro Asn Leu Arg Gly Asp Leu
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101 Gln Val Leu Ala Gln Lys Val Ala Arg Thr Leu Pro Ser Thr Pro Pro
102 35 40 45
104 Ala Pro Phe Ser
105 50
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115 agtagaaatg ctgttcctaa ttgagagga gatcttcaag ttttggctca aaaggttgct 120
116 cggactcttc ctgactcctc tctgctcca ttttca 156
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119 <211> LENGTH: 52
120 <212> TYPE: PRT
121 <213> ORGANISM: Foot-and-mouth disease virus
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124 Tyr Ser Pro Cys Met Ile Ala Ser Thr Tyr Ser Arg Asn Ala Val Pro
125 1 5 10 15
127 Asn Leu Arg Gly Asp Leu Gln Val Leu Ala Gln Lys Val Ala Arg Thr
128 20 25 30
130 Leu Pro Ser Thr Pro Pro Ala Pro Phe Ser Asp Val Thr Ala Val Thr
131 35 40 45
133 Phe Asp Leu Ile
134 50
137 <210> SEQ ID NO: 9

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144 gatcttcaag ttttggtcga aaaggttgct cggactcttc ctgactcc tctgctcca 120
145 ttttcagacg ttacagcagt aacttttgac ttaate 156
147 <210> SEQ ID NO: 10
148 <211> LENGTH: 156
149 <212> TYPE: DNA
150 <213> ORGANISM: Foot-and-mouth disease virus
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154 ctagaagttc aaaaccgagt ttccaacga gcctgagaag gatcgtgagg aggacgaggt 120
155 aaaagtctgc aatgtcgtca ttgaaaactg aattag 156
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160 <213> ORGANISM: Artificial Sequence
162 <220> FEATURE:
163 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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167 1 5 10 15
169 Ala Val Thr Phe Asp Leu Ile
170 20
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175 <212> TYPE: DNA
176 <213> ORGANISM: Artificial Sequence
178 <220> FEATURE:
179 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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183 gacttaatc 69
185 <210> SEQ ID NO: 13
186 <211> LENGTH: 69
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
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195 gacttaatc 69
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198 <211> LENGTH: 21
199 <212> TYPE: PRT
200 <213> ORGANISM: Artificial Sequence
202 <220> FEATURE:

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 207 1 5 10 15
 209 Arg Asp Arg Ser Asp
 210 20
 213 <210> SEQ ID NO: 15
 214 <211> LENGTH: 67
 215 <212> TYPE: DNA
 216 <213> ORGANISM: Artificial Sequence
 218 <220> FEATURE:
 219 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 221 <400> SEQUENCE: 15
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 223 cggacgt 67
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 227 <212> TYPE: DNA
 228 <213> ORGANISM: Artificial Sequence
 230 <220> FEATURE:
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 246 1 5 10 15
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 252 35 40 45
 255 <210> SEQ ID NO: 18
 256 <211> LENGTH: 141
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 261 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
 263 <400> SEQUENCE: 18
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 268 <210> SEQ ID NO: 19
 269 <211> LENGTH: 16
 270 <212> TYPE: PRT

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271 <213> ORGANISM: Artificial Sequence
273 <220> FEATURE:
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287 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
289 <400> SEQUENCE: 20
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293 <211> LENGTH: 44
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295 <213> ORGANISM: Artificial Sequence
297 <220> FEATURE:
298 <223> OTHER INFORMATION: Description of Artificial Sequence: Synthetic
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308 <220> FEATURE:
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316           20           25           30
318 Asp Val Thr Ala Val Thr Phe Asp Leu Ile
319           35           40
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332 gctactggaa tcgataatca tagagaagct aaattggacg tcacagcagt aacttttgac 120
333 ttaatc           126
335 <210> SEQ ID NO: 24
336 <211> LENGTH: 39
337 <212> TYPE: PRT
338 <213> ORGANISM: Foot-and-mouth disease virus

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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/304,967

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Input Set : A:\04646-1.app

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